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Book Review

Organic Production and Food Quality: *A Down to Earth Analysis.* Robert Blair, Wiley-Blackwell, USA (2012), 296 pages, Hardcover, ISBN: 978-0-8138-1217-5

"Organic Production and Food Quality: A Down to Earth Analysis" by Professor Robert Blair of the University of British Columbia, Vancouver, Canada is comprised of 12 chapters and an extensive index.

Chapter 1 briefly outlines the development of the organic food industry and explains the motivation for its growth. It is clear from this chapter that organic food production is based on philosophy rather than scientific method, which helps to explain the relative shortage of data on organic food quality.

Chapter 2 outlines consumer concerns about food, noting that consumers now have more interest in the link between food and health.

Chapters 3 to 8 assess the documented findings on the quality of vegetable produce, fruit, cereal grains, meats (including fish), milk and dairy products, and eggs produced conventionally and organically.

Chapter 9 poses the question "Is organic food safer?" It reviews the documented evidence on the health aspects of organic and conventional food, based on chemical residues, indices of human health, and findings of animal studies. It is clear from the data that there needs to be better documentation of chemical residue levels in conventional and organic foods before it can be argued conclusively that organic foods are better in this respect. An important finding outlined in the book is that farmers have overall cancer rates substantially lower than that of the general public. This is contrary to what would be expected if there was a strong correlation between chemical usage and incidence of cancer. The use of manure as fertilizer in organic farming may emerge as a possible health concern, if the recent food poisoning cases in Europe that were linked to organic produce become more frequent.

Chapter 10, entitled "Is organic food more nutritious and "tasty"?", discusses the documented evidence on the relative quality of organic and conventional food, including freshness, taste and nutritional composition. It is clear from the findings that some authors need to present more complete data in their publications. For instance, there is evidence that some organic vegetable produce and fruit is drier than conventionally grown product. When this factor is taken into account, it often explains a higher concentration of nutrients in the organic product. A slightly drier fruit may also have a more intense flavor due to the higher concentration of nutrients, and as a result may be preferred by the consumer. There is evidence that some organically grown fruits have a higher resistance to deterioration and better keeping quality, attributed to a lower moisture content.

Chapter 11 explores the motivation of consumers to buy organic food, in which the psychology of organic food choice and the results of surveys are presented. "Healthfulness" appears to be a key driver of consumer perceptions of food quality, but taste, consistency and nutritional value are also important. Psychological issues such as the "halo effect", which are related to the choice and consumption of organic food, are additional motivating factors in the purchase of organic food. One factor that drives consumers to purchase organic food is the presence of an organic label, which leads many consumers to infer qualities that are not substantiated factually.

Chapter 12 concludes that organic and conventional foods are fairly similar in terms of nutritional quality and freedom from harmful chemical residues. This conclusion is in agreement with conclusions reached by many other scientists and

governmental food agencies worldwide. As noted in the book, a very surprising development is that an important group within the organic industry in Europe now agrees with this assessment. Consequently the European Ecropolis project will concentrate research on another attribute of organic food: taste. It seems clear that much of the appeal of organic food, especially when purchased at farmers' markets, is its freshness. More research needs to be conducted on this issue since freshness is an important attribute for the food shopper.

This book by Professor Blair is a very valuable analysis of how organic food production affects food quality, and the conclusions and suggestions should be of great interest to all sectors of the food industry, including researchers and producers. Hopefully the book will also benefit consumers by encouraging the media and the food industry to present a more accurate picture of the relative quality of conventional and organic foods.

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